

Comment on “Global Access to Handwashing: Implications for COVID-19 Control in Low-Income Countries”

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Brauer et al. (2020) estimate that over 2 billion people lack access to household handwashing facilities, amplifying critical questions for COVID-19 prevention measures in low-income countries. Despite these dire figures, the situation may be far worse, given unreliable and costly access to water and soap in households, schools, and health care facilities. The current World Health Organization COVID-19 guidance on hand hygiene (WHO 2020) will be infeasible for many and requires updating to support resource-poor settings.

Hundreds of millions in sub-Saharan Africa alone require at least 30 min per trip to fetch drinking water (WHO/UNICEF 2017). Data on non-drinking–water sources are not routinely collected and reported at scale, but evidence suggests that water-insecure households prioritize using water for drinking over hygiene practices (Stevenson et al. 2012). Both soap and water may be costly, prioritized for other uses, and tightly rationed, if available. Fetching water from public sources—predominantly performed by women and girls (Graham et al. 2016)—requires waiting at communal locations that may be crowded. Individuals must also touch widely used public water pump handles and taps, surfaces on which SARS-CoV-2 can remain viable for several days (van Doremalen et al. 2020).

Further, water-insecure communities are frequently served by resource-poor health care facilities. An estimated 20% of health care facilities globally—40% in sub-Saharan Africa—do not have an on-premises water source (WHO/UNICEF 2020b); the proportion with handwashing facilities is unknown (WHO/UNICEF 2020a). Local outbreaks will result in an amplification of the exposure risk for frontline health workers—also predominantly women—making it all the more crucial to get handwashing right in these settings.

What should be done? Clear, evidence-based guidance is needed on the efficient use of water and soap or soap alternatives in water-scarce settings. “Soapy water”—a mixture of powder, liquid, or bar soap diluted in water—may be a scalable and economical solution (Amin et al. 2014). Ash has been shown to be effective for cleaning hands when soap and water are scarce (Bloomfield and Nath 2009), but its effectiveness against SARS-CoV-2 needs to be established. Evidence on safe strategies for economizing water for handwashing, such as using non-drinking–water sources or reusing water, is needed.

Although infections in much of sub-Saharan Africa have been low relative to other regions (WHO Regional Office for Africa 2020), the pace of COVID-19 infections has been quickening, and the escalating cases in South Africa (IHME 2020a) may be a harbinger of a coming wave of infection. Cases of COVID-19 are surging in other countries with limited access to handwashing stations and water among the poorest populations (IHME 2020b). Clear, targeted, and actionable recommendations are needed for people without reliable water access (WHO/UNICEF 2017). Low-flow and locally fabricated handwashing stations, soap or alternatives, and evidence-based behavior change approaches should be developed and deployed. Lessons learned could support long-term habit formation among hard-to-reach populations and adjustments in development approaches.

Handwashing with soap is one of the most cost-effective public health interventions. Yet water inequity magnifies health disparity, making a simple behavior unattainable for the world’s poorest unless urgent action is taken.

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